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IN THE U.S. PATENT AND TRADEMARK OFFICE

Appl. No.	:	09/649,973
Applicant	:	Vogl et al.
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Art Unit	:	2155
Examiner	:	Bharat Barot
Docket No.	:	YOR920000532US1
Customer No.	:	29683

Title: A Method of Doing Business over a Network by Transmission and Retransmission of Digital Information on a Network During Time Slots

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
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APPEAL BRIEF

Sir:

Commensurate with the Notice of Appeal filed on September 28, 2005, Applicants hereby submit this Appeal Brief to the Board of Patent Appeals and Interferences (hereinafter, the Board) under 37 CFR §41.31. Please note that Applicants filed a Notice of Appeal on September 28, 2005. However, Applicants filed the Notice of Appeal using the Serial Number 10/649,973 and not 09/649,973. On November 18, 2005, Applicants' attorney noticed the error, and on November 21, 2005, Applicants resent the materials for the Notice of Appeal and authorized if necessary a withdrawal for the appropriate fees for any extensions of time.

Please debit Deposit Account number 50-0150 for the $500 appeal brief fee set forth in 37 CFR §41.20(b)(1). This Appeal Brief is filed within two months from the

filing date of the above-cited Notice of Appeal and the undersigned representative believes that no late fee is due. However, should the undersigned attorney be mistaken, please consider this a petition for an extension of time under 37 CFR §1.136(a) or (b) that may be required to avoid dismissal of this appeal, and debit Deposit Account No. 50-0510 as appropriate.

(1) REAL PARTY IN INTEREST

The real party in interest (RPI) is International Business Machines Corporation, as evidenced by an assignment of the U.S. application recorded on November 30, 2000 at reel 0111134 and frame 0672.

(2) RELATED APPEALS AND INTERFERENCES

There are no other pending appeals or interferences of which the undersigned representative and assignee/RPI is aware that will directly affect, be directly affected by or have a bearing on the Board's decision in this appeal.

(3) STATUS OF CLAIMS

Claims 1-19 are pending in this appeal, and are reproduced in an Appendix accompanying this Brief as those claims stood finally rejected by a final Office Action dated June 28, 2005. Claims 20-22 have been withdrawn but are reproduced in the Appendix and marked as Withdrawn.

(4) STATUS OF AMENDMENTS

No amendment to the claims was proposed subsequent to the Final Rejection dated June 28, 2005.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

In an exemplary embodiment, a method of doing business over a network is disclosed. See, e.g., page 4, lines 7-14; figures 6, 6A, and 10-14. In an exemplary method, a request (see transmission request 700 of FIG. 7 and corresponding text from page 30, line 3 to page 35, line 14) for transmitting digital information after a start time (e.g., the transmission release time 742; see FIGS. 7 and 7A and page 34, lines 1-7) before an end time (e.g., the transmission deadline 747; see FIGS. 7 and 7A and page 34, lines 1-7). The method determines the time required to transmit the digital information based on the number of packets in the information and the network speed (see, e.g., page 10, line 22 to page 11, line 3; page 60, line 12 to page 61, line 5; and FIG. 12), schedules a transmit time for the digital information (see, e.g., page 13, line 17 to page 17, line 4; page 55, lines 17-21; page 60, lines 4-11; and FIG. 12), and accepts the digital information for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time (see, e.g., page 37, line 19 to page 39, line 18; page 71, line 15 to page 76, line 4; and FIG. 14).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. The first ground for rejection (Issue A) presented for review by the Board is whether claims 1-11 and 16-19 are unpatentable under 35 U.S.C. §103(a) as being obvious in light of U.S. Patent No. 5,903,724 to Takamoto et al. (hereinafter, Takamoto) in view of U.S. Patent No. 5,875,175 to Sherer et al. (hereinafter, Sherer). Under Issue A, claims 1, 6, 8, 9, and 17 stand or fall together; claim 2 stands or falls alone; claim 3 stands or falls alone; claim 4 stands or falls alone; claim 5 stands or falls alone; claims 7 and 10 stand or fall together; claim 11 stands or falls alone; claim 16 stands or falls alone; and claims 18 and 19 stand or fall together.

B. The second ground for rejection (Issue B) presented for review by the Board is whether claims 12-15 are unpatentable under 35 U.S.C. §103(a) as being obvious in light of Takamoto in view of Sherer and in further view of U.S. Patent No. 6,564,382 to Duquesnois et al., (hereinafter, Duquesnois). Under Issue B, claim 12 stands or falls alone; claims 13 and 14 stand or fall together; and claim 15 stands or falls alone.

(7) ARGUMENT

ISSUE A

Claims 1-11 and 16-19 stand rejected as being unpatentable under 35 U.S.C. §103(a) as being obvious in light of Takamoto in view of Sherer. Applicants respectfully traverse this rejection.

In the sole independent claim, independent claim 1, a request is received for transmitting digital information after a start time and before an end time. The digital information has a number of packets. The time required to transmit the digital information is determined based on the number of packets and a network speed. A transmit time is scheduled for the digital information. The digital information is accepted for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time.

With regard to the rejections to independent claim 1, the Examiner rejected this claim using a combination of Takamoto and Sherer. Applicants respectfully submit that neither Takamoto nor Sherer disclose or imply at least the subject matter in independent claim 1 of "receiving a request for transmitting digital information after a start time and before an end time" and "accepting the digital information for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time." Because neither Takamoto nor Sherer discloses or

implies this recited subject matter, the combination of Takamoto and Sherer does not disclose or imply the recited subject matter.

In §9 of the outstanding Office Action, the Examiner asserts that Takamoto teaches certain elements of independent claim 1, including "accepting the digital information for transmission." The Examiner cites a number of portions of Takamoto for this assertion but admits that Takamoto "does not teach the steps of: receiving, determining, scheduling, and accepting with specific conditions." See §9 of the outstanding Office Action.

For the subject matter of "receiving a request for transmitting digital information after a start time and before an end time", the Examiner cites Sherer, figures 3B and 4 col. 3, line 3 54 to col. 4, line 3; col. 6, line 40 to col. 7, line 11; col. 9, lines 15-31, and col. 11, lines 6-18. The recited sections of Sherer fail to teach or suggest "receiving a request for transmitting digital information after a start time and before an end time". Because of the complexity of Sherer and the Examiner's mischaracterization thereof, Applicants will briefly review some of the cited portions of Sherer.

Applicants read Sherer as disclosing the following:

> "A network transmitter schedules packets so that packets are transmitted to a host or group of hosts so as not to overload any particular part of the network. In an embodiment, the transmitter uses packet data structures with a schedule indication for packets placed in the queue so that an independently running adaptor may know when to remove packets from the queue and transmit them. In an alternative embodiment, packets are scheduled by setting a future interrupt for transmitting a packet or group of packets. In a further embodiment, packets are placed in temporal sets where a temporal set is a group of packets that can be transmitted in succession without violating the bandwidth limitations of any network segment."

Sherer at Abstract. Sherer further continues with the following:

> "The scheduler controls transmission of packets by providing for packet transmission alerts to the adaptor to transmit the packets. ***Two specific alternative mechanisms for generating alerts*** are described in detail below (interrupt-based download control and descriptor-based download control), but other mechanism for generating alerts are possible within the invention.
>
> "In ***interrupt-based download control***, the scheduler sets (or programs) a future interrupt for a to-be-transmitted packet based on the schedule for that destination. When the interrupt occurs, the driver instructs the adaptor to transmit the scheduled packet.
>
> "In *descriptor-based download control*, the scheduler attaches a scheduling indication to packets placed in system memory, and the adaptor uses that indication to determine when to download that packet from system memory and transmit the packet on the network.
>
> "According to the invention, other techniques, including grouping packets into temporal sets, may be used by the scheduler to control the flow of transmitted packets to optimize network performance. Temporal sets are groups of packets that the scheduler determines can be transmitted in back-to-back fashion without violating the target bandwidth of any destination. When packets are grouped into temporal sets, the scheduler may set just one alert for a group of packets."

Sherer at col. 3, line 54 to col. 4, line 12 (emphasis added). In this recited text of Sherer, Sherer describes two alternative mechanisms for generating alerts, interrupt-based download control and descriptor-based download control. Descriptor-based download control is described, e.g., from col. 9, line 15 to col. 11, line 5 of Sherer. In this section, Sherer states the following:

> "According to this embodiment [FIG. 3A], scheduler 130 uses bits placed in packet descriptors to specify a time at which packet download will begin, in either absolute or relative terms. An adaptor according to the invention examines the scheduling indication in a packet descriptor and uses that indication to determine when packets should be downloaded from system memory and transmitted on the network."

Sherer at col. 9, lines 20-27. In this embodiment in Sherer, there is no disclosure or implication of "receiving a request for transmitting digital information after a start time and before an end time" as recited in independent claim 1.

Interrupt-based download control is described in Sherer at, e.g., col. 11, lines 6-18 and in FIG. 3B. In this embodiment in Sherer, there is no teaching or implication that a request is received for transmitting digital information after a start time and before an end time, and Applicants can find no teaching or disclosure of this subject matter anywhere else in Sherer. Thus, Sherer fails to teach or suggest "receiving a request for transmitting digital information after a start time and before an end time" as recited in independent claim 1.

Since neither Takamoto nor Sherer teach or suggest "receiving a request for transmitting digital information after a start time and before an end time", the combination of Takamoto and Sherer cannot teach or imply this recited subject matter. The §103(a) rejection to independent claim 1 should be withdrawn.

Also in §9 of the outstanding Office Action, the Examiner states that "Takamoto et al do not teach the steps of: receiving, determining, scheduling, and accepting with specific conditions." It is believed that this statement means that the Examiner admits that the subject matter of "receiving a request for transmitting digital information after a start time and before an end time" is not taught by Takamoto. Applicants also believe that the term "specific conditions" as recited by the Examiner means at least that the subject matter of "only if the time required to transmit is less than or equal to the difference between the transmit time and the end time" in "accepting the digital information for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time" is a "condition" not described by Takamoto's asserted step of "accepting." Therefore, Applicants believe that the Examiner admits that Takamoto does not disclose at least the subject matter of "only if the time required to transmit is less than or equal to the difference between the transmit

time and the end time". Nonetheless, Applicants have examined the cited and other portions of Takamoto and cannot find any teaching or implication in Takamoto of "accepting the digital information for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time".

Applicants will also show that Sherer does not disclose at least the recited subject matter of "accepting the digital information for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time" in independent claim 1. In the third paragraph from the top of page 3, §5 of the outstanding Office Action, the Examiner asserts that Sherer teaches the recited subject matter at col. 9, lines 32-40 and col. 9, line 61 to col. 10, line 26. Col. 9, lines 32-40 of Sherer states the following:

> "In one embodiment, adaptor 160 reads schedule time 144a from the data structure 142a and compares that to a real-time counter 162. If real-time counter 162 has a lower value than the schedule time, the adaptor waits and does not transmit the packet on the network. If the real-time counter has a higher value than the schedule time, the adaptor down-loads the packet for transmission. In one embodiment, a packet is stored in one or more packet data buffers 146a-c in system memory 140."

Nowhere in this cited text of Sherer is it disclosed or implied that digital information is accepted for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time. There does not appear to be any disclosure of determining a time required to transmit digital information and determining whether the time required to transmit is less than or equal to a difference of times.

Further continuing the analysis of Sherer, col. 9, line 61 to col. 10, line 26 of Sherer describes a format for "ScheduleTime," which is part of a packet descriptor data structure of FIG. 5 of Sherer. The ScheduleTime "contains information fields controlling when [a] packet is to be downloaded." See col. 9, lines 52-53 of Sherer. FIG. 6 defines

the format of ScheduleTime. See col. 9, lines 61-63 of Sherer. While col. 9, line 61 to col. 10, line 26 of Sherer does disclose a number of bits that are used when performing certain functions, Applicants respectfully submit that there is no teaching or implication in col. 9, line 61 to col. 10, line 26 of the recited subject matter. Applicants have also reviewed other portions of Sherer and can find no teaching or implication of the recited subject matter of "accepting digital information only if the time required to transmit is less than or equal to the difference between the transmit time and the end time".

Applicants have therefore shown that neither Takamoto nor Sherer disclose or imply at least the recited subject matter of "accepting the digital information for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time", and therefore the combination of Takamoto and Sherer cannot teach or imply this recited subject matter. The §103(a) rejection to independent claim 1 should be withdrawn.

Nevertheless, in §22(A) of the final Office Action, the Examiner states that "Sherer discloses that down-loads [occur of] the packet for transmission if the real-time (***the difference between the transmit time and the end time***) is gr[e]ater than or equal to the schedule time (time required to transmit) (column 9 lines 32-40; and column 10 line 48 to column 11 line 5) which is functionally equivalent to the claimed accepting step; therefore, the combination of Takamoto and Sherer does disclose the recited/argued subject matter." §22(A) of the final Office Action (emphasis added). Applicants respectfully disagree. The Examiner appears to equate a "real-time" with "the difference between the transmit time and the end time". It is unclear as to what is meant by "real-time". The sections of Sherer cited by the Examiner describe a "real-time counter 162". The real-time counter 162 is simply a counter used to determine when to transmit a packet

(see Sherer at col. 9, lines 32-40), and this counter can be set to a certain value (see Sherer at col. 10, lines 6-10). Applicants can find no disclosure or implication in Sherer of something that is "real-time" and is equivalent to or implies "the difference between the transmit time and the end time" that is used when "accepting the digital information for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time". For at least this reason, Applicants respectfully request the §103(a) rejection to independent claim 1 be withdrawn.

Furthermore, Applicants respectfully submit that there is no motivation to combine Takamoto and Sherer. As described in the previous Office Action Response, dated June 3, 2004, Takamoto is concerned with improving the speed at which a packet transmission process is performed. Takamoto improves this speed by dividing one ACK unit packet into multiple "sub-ACK" unit packets, where a retransmission request may be performed by per sub-ACK unit packet instead of per ACK unit packet. See, for instance, col. 4, lines 21-43 and Abstract of Takamoto. Sherer, on the other hand, is directed to scheduling "packets so that packets are transmitted to a host or group of hosts so as not to overload any particular part of the network." See Abstract of Sherer. Sherer is unconcerned with improving a speed at which a packet transmission process is performed.

In fact, because the invention in Sherer schedules packets so as not to overload any particular part of a network, the invention of Takamoto, which breaks larger ACK units into smaller sub-ACK units, does not seem to be helpful to the invention in Sherer. If the two were combined, then the combination would not only have to schedule packets (e.g., ACK unit packets), but would have to schedule sub-packets (e.g., sub-ACK unit packets). This would increase costs and overhead with limited or no benefit.

Moreover, Sherer teaches away from a combination of Takamoto and Sherer when Sherer states that "[w]hile the invention is designed for use in networks with variable-width or with fixed-width packets, the invention has particular application when large amounts of data are being transmitted to a destination, and in this case, packets will often be of a maximum (and therefore fixed) size." Col. 5, lines 34-38 of Sherer. Therefore, Sherer implies that the invention of Takamoto, which divides one large ACK unit packet into multiple smaller sub-ACK unit packets, would be of little or no use to combine with the invention of Sherer.

Consequently, Applicants respectfully submit that it is improper to combine Takamoto and Sherer and further request the 103(a) rejection to independent claim 1 be withdrawn.

Thus, Applicants respectfully submit that independent claim 1 is patentable over the cited art for at least the reasons given above. Because independent claim 1 is patentable over the cited art, dependent claims 2-19 are also patentable.

With regard to claim 2, this claim contains the subject matter of "where the digital information is transmitted at a first price." In §22(C) of the outstanding Office Action, the Examiner states "Claim 2 Sherer discloses that [a] packet (digital information) [that] is transmitted at a real-time has a higher value than a schedule time (first price) (column 9 lines 32-40)".

The Examiner's assertion appears to equate the term "price" in the claims with a time (or a value thereof) of transmission and a scheduled time. Applicants will respectfully show using both intrinsic and extrinsic evidence that the Examiner is improperly construing the term "price".

In *Phillips v. AWH Corporation*, No. 03-1269, 03-1268 (Fed. Cir. July 12, 2005) (*en banc*), the court divided analysis into intrinsic evidence (such as the specification, claims, and prosecution history) and extrinsic evidence (such as dictionaries and expert testimony). The court started the analysis of claim interpretation with intrinsic evidence and related the following:

> We have frequently stated that the words of a claim "are generally given their ordinary and customary meaning." We have made clear, moreover, that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.

Id. at page 9 (citations omitted). The court went on to state that "[i]mportantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* at page 10.

Turning to extrinsic evidence, the court stated that it has authorized district courts to rely on extrinsic evidence, including dictionaries. See *Id.* at page 18, first paragraph of section C. However, the court considered extrinsic evidence to be less significant than the intrinsic record in determining the legally operative meaning of claim language. See *Id.* at page 18, first paragraph of section C. See also *Id.* at pages 18-20. The court stated:

> In sum, extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence. Nonetheless, because extrinsic evidence can help educate the court regarding the field of the invention and can help the court determine what a person of ordinary skill in the art would understand claim terms to mean, it is permissible for the district court in its sound discretion to admit and use such evidence. In exercising that discretion, and in weighing all the evidence bearing on claim construction, the court should keep in mind the flaws inherent in each type of evidence and assess that evidence accordingly.

Id. at page 21, the paragraph prior to section III.

Applying the text in *Phillips* to the present situation, in the Applicants' present disclosure, there are multiple references to costs (see 730, 732, 734 of FIG. 7; billing processes 129 and 136 of FIG. 1A) and to price (see page 4, lines 4-5 and 12-14). Applicants specifically state the following:

> "After calculating an estimate of the cost of the transmission, step 1420, the process 139 checks, step 1430, to see if the cost is within the (optional) billing cost 734 amount specified in the transmission request 700. If the estimated cost 1420 is greater than the billing cost 734, execution of the process 139 branches to step 1460 where an iteration of a next transmission constraint 770 is performed."

Page 72, line 21 to page 73, line 3 of the present disclosure. Applicants also state that "[t]he optional ***billing processes (129, 136)*** of the dispatch server 120 and the scheduling server 130 monitor the progress of the dispatching process 600 (600A, 600B) and examine statistics stored in the dispatching process 600 history log 400 and network use criteria table 500 in order to determine ***a cost of a file transmission***." Page 9, lines 6-9 of the present disclosure (emphasis added).

It is clear that "price" in the disclosure and dependent claim 2 (and other dependent claims) is associated with a monetary value. Thus, intrinsic evidence suggests that "price" is associated with a monetary value.

Turning to extrinsic evidence, as defined in Random House Webster's College Dictionary, "price" means "the sum or amount of money or its equivalent for which anything is bought, sold, or offered". *Random House Webster's College Dictionary* 1033 (2d ed., 1997). Consequently, extrinsic evidence suggests that "price" is associated with a monetary value.

Turning to the Examiner's reading of the term "price" as being equivalent to a time (or a value thereof) for transmission or a scheduled time, this reading of the term "price" is not commensurate with the intrinsic and extrinsic evidence provided above. It is also clear that neither Takamoto nor Sherer are concerned with transmitting information based on price. Therefore, the combination of Takamoto and Sherer is not concerned with, does not disclose, and does not imply "where the digital information is transmitted at a first price" as recited in dependent claim 2. Dependent claim 2 is patentable over the combination of Takamoto and Sherer.

Referring to claim 3, this claim recites "where the digital information is rejected for transmission if the time required to transmit is more than the difference between the transmit time and the end time". The Examiner points to FIGS. 3A and 3B, col. 9, lines 16-40, and col. 10, line 48 to col. 11, line 5 of Sherer for asserted disclosure of this subject matter (and the Examiner admits that Takamoto does not disclose the subject matter). Applicants respectfully disagree. For instance, Sherer states:

> "FIG. 10 shows real time count register 162 according to one embodiment of the invention. RealTimecnt is a real-time counter which supports the packet download scheduling function. RealTimeCnt counts continuously, incrementing every 800 ns (0.8 μ s), and wrapping to zero when it reaches its maximum value. When a transmit packet is scheduled for download, the download starts when RealTimeCnt is greater than or equal to the value in the packet data structure's scheduleTime field. RealTimeCnt is loaded with the value in scheduleTime when the loadTimeCnt bit is set. This has the side effect of causing the packet to be downloaded immediately. RealTimeCnt is cleared by reset."

Col. 10, lines 48-59 of Sherer. There does not appear in the cited sections of Sherer to be any determination of a time required to transmit when the digital information is or is not being rejected for transmission, and there certainly is no disclosure or implication of rejecting digital information for transmission if the time required to transmit is more than the difference between the transmit time and the end time. Further, as described above

with respect to independent claim 1, there does not appear in Sherer (or Takamoto) to be any reception of a request for transmitting information after a start time and before an end time, and therefore there is no "end time" to compare with a transmit time.

For at least these reasons, dependent claim 3 is patentable over the combination of Takamoto and Sherer.

With regard to dependent claim 4, this claim recites "A method, as in claim 3, where the digital information is accepted for transmission at a second price." As claim 3 is patentable over the combination of Takamoto and Sherer, claim 4 is also patentable. As further described in reference to claim 2, Takamoto, Sherer, nor their combination discloses or implies transmitting digital information at a particular price. For at least these reasons, claim 4 is patentable over the combination of Takamoto and Sherer.

With regard to claim 5, this claim recites "A method, as in claim 3, where the digital information is rescheduled by the scheduler and accepted for transmission at a second price after the information is rejected." As claim 3 is patentable over the combination of Takamoto and Sherer, claim 5 is also patentable. As further described in reference to claim 2, Takamoto, Sherer, nor their combination discloses or implies transmitting digital information at a particular price. Furthermore, there is no disclosure in Sherer of rescheduling digital information that has been rejected for transmission and accepting the digital information based on price. For at least these reasons, dependent claim 5 is patentable over the combination of Takamoto and Sherer.

Referring to dependent claims 7 and 10, claim 7 recites "A method, as in claim 6, that produces a bill on receipt of the acknowledgment" and claim 10 recites "A method, as in claim 9, that produces a bill on receipt of the acknowledgment for one or more of the portions." It is noted that the Examiner admits that Takamoto does not

disclose producing a bill on receipt of acknowledgement and then asserts that it would be obvious to produce such a bill. In reference to dependent claim 2, Applicants have shown that neither Takamoto nor Sherer is directed to transmitting information at or based on a price. Further (and consequently), neither of these references discloses producing a bill on a receipt of acknowledgement. In light of this, the Examiner's assertion that it would be obvious to produce a bill based on receipt of acknowledgement is hindsight analysis, unsupported by any reference. Dependent claim 7 is therefore patentable over the combination of Takamoto and Sherer.

With regard to claim 11, this claim recites "A method, as in claim 1, where one or more portions of the digital information are initially rejected and then accepted for transmission at one or more second times and at one or more second prices." Referring to independent claim 1, claim 1 recites in part "accepting the digital information for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time." Based on the subject matter in claim 1, the rejection of the digital information in claim 11 is a rejection of ***transmission***, which is particularly true as claim 11 then accepts the digital information for ***transmission***. The Examiner cites Takamoto as disclosing the subject matter of claim 11. However, Takamoto discloses that digital information is rejected (NACK) ***after*** transmission (see Takamoto at col. 4, lines 33-37), not that there is a rejection of digital information for ***transmission***. Sherer does not disclose or imply a rejection of digital information for transmission and subsequent acceptance for transmission. Further, as shown above in reference to dependent claim 2, neither Takamoto nor Sherer is directed to transmitting information at a price. For at least these reasons, dependent claim 11 is patentable over the combination of Takamoto and Sherer.

With regard to dependent claim 16, this claim recites "A method, as in claim 1, where the digital information is scheduled from one or more retransmissions if the time required to transmit is more than the difference between the transmit time and the end time." The Examiner cites Sherer, col. 6, line 12 to col. 7, line 47 and FIGS. 4A and 4B for disclosure of this subject matter. Applicants respectfully disagree. The cited text of Sherer appears to disclose, *inter alia*, temporal sets and how they are handled. "Temporal sets are groups of packets that the scheduler determines can be transmitted in back-to-back fashion without violating the target bandwidth of any destination." Sherer at col. 4, lines 7-10. There is no disclosure or implication in Sherer of scheduling digital information from one or more ***re***transmissions if the time required to transmit is more than the difference between the transmit time and end time, as recited in dependent claim 16. Further, as described above with respect to independent claim 1, there does not appear in Sherer (or Takamoto) to be any reception of a request for transmitting information after a start time and before an end time, and therefore there is no "end time" to compare with a transmit time. For at least these reasons, dependent claim 16 is patentable over the combination of Takamoto and Sherer.

With regard to claims 18 and 19, claim 18 recites "A method, as in claim 1, where the digital information is also not transmitted if one or more criteria are not met." The Examiner points to portions of Sherer for disclosure of this subject matter. However, the portions of Sherer appear always to transmit digital information after scheduling. For instance, see col. 3, lines 42-46 of Sherer: "The scheduler, knowing the bandwidth of a particular destination, determines a schedule for transmitting packets so that a destination does not receive packets faster than it can handle those packets. The scheduler may do this according to a variety of algorithms." There is no disclosure in Sherer (or in Takamoto) of ***not*** transmitting digital information if one or more criteria are not meant, as

Sherer seems to always transmit the information once scheduled. Therefore, dependent claim 18 is patentable over the combination of Takamoto and Sherer. Because dependent claim 18 is patentable, dependent claim 19, which depends from claim 18, is also patentable for at least the reasons given with respect to dependent claim 18.

ISSUE B

Claims 12-15 are evaluated with respect to the second ground of rejection (Issue B). With regard to dependent claims 12-15, the Examiner rejected these claims under 35 U.S.C. §103(a) as being unpatentable over Takamoto in view of Sherer as applied to claim 1, and further in view of Duquesnois.

As described in the Office Action response dated June 3, 2004, the disclosure of which is hereby incorporated by reference, Duquesnois is concerned with a method for playing a set of multimedia applications in real time. The method of Duquesnois itself sets an internal priority level in order to restore synchronization so that the set of multimedia applications can continue to be played in real time. According to the method, various priority levels are assigned to processes (*e.g.*, an audio decoding and rendering task; a video decoding task; a video rendering task; and a browser display update task) that are cooperating to play back a multimedia segment.

The assignment of various priorities to processes cooperating to reproduce a multimedia segment as in the method of Duquesnois has little or nothing to do with the assignment of a priority level to digital information that is submitted for transmission as in the recited subject matter of the claimed method of Applicants' invention.

Moreover, in dependent claim 12, which recites "A method, as in claim 1, where the request has one or more priorities", the ***request*** for transmitting digital information after a start time and before an end time (see claim 1) has additionally one or

more priorities. Applicants can find no "request" or its equivalent in Duquesnois that is a request for transmitting digital information after a start time and before an end time additional has one or more priorities or that is a request for transmitting digital information that also has one or more priorities. In Duquesnois, it appears that tasks from a multimedia application are associated with priorities (see Abstract of Duquesnois), but there is no request for transmitting digital information that also has one or more priorities contained therein. As the Examiner admits that neither Takamoto nor Sherer disclose priorities and Duquesnois also does not disclose the recited subject matter of claim 12, dependent claim 12 is patentable over the combination of Takamoto, Sherer, and Duquesnois.

Referring to claims 13 and 14, what Applicants mean by "priority" is clear from claim 13: "where the priority is that the digital information is transmitted within a time period" and claim 14: "where the time period is any one or more of the following: overnight, two days, and one week". It is clear from these claims that the "priority" of Applicants' invention as claimed has little or no relationship with the "priority levels" assigned to various processes cooperating to reproduce multimedia segments in the method of Duquesnois.

For at least these reasons, dependent claims 13 and 14 are patentable over the comb of Takamoto, Sherer, and Duquesnois.

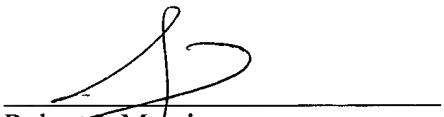
Turning to dependent claim 15, this claim recites "A method, as in claim 12, where the priority is a freight priority that requires the digital information to be transmitted within a freight time period with no acknowledgments." Applicants respectfully submit that there is no disclosure or implication in any of Takamoto, Sherer, and Duquesnois concerning the combination of features in dependent claim 15. In

particular, Takamoto appears to require acknowledgements (e.g., ACKs) and both Sherer and Duquesnois appear to be silent on acknowledgements.

The Applicants respectfully request the Board reverse the final rejection in the Office Action of July 28, 2005, and further that the Board rule that the pending claims are patentable over the cited art.

Respectfully submitted:

HARRINGTON & SMITH, LLP



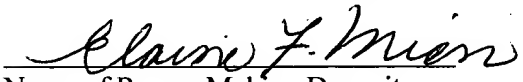
11/28/05

Robert J. Mauri
Reg. No. 41,180

Date

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



11/28/05

Name of Person Making Deposit

Date

(8) CLAIMS APPENDIX

1. A method of doing business over a network comprising the steps of:

receiving a request for transmitting digital information after a start time and before an end time, the digital information having a number of packets;

determining the time required to transmit the digital information based on the number of packets and a network speed;

scheduling a transmit time for the digital information; and

accepting the digital information for transmission only if the time required to transmit is less than or equal to the difference between the transmit time and the end time.

2. A method, as in claim 1, where the digital information is transmitted at a first price.

3. A method, as in claim 1, where the digital information is rejected for transmission if the time required to transmit is more than the difference between the transmit time and the end time.

4. A method, as in claim 3, where the digital information is accepted for transmission at a second price.

5. A method, as in claim 3, where the digital information is rescheduled by the scheduler and accepted for transmission at a second price after the information is rejected.

6. A method, as in claim 1, that receives an acknowledgment of the transmission.

7. A method, as in claim 6, that produces a bill on receipt of the acknowledgment.

8. A method, as in claim 1, where one or more portions of the digital information are accepted for transmission and are transmitted.

9. A method, as in claim 8, that receives an acknowledgment of the transmission of one or more of the portions.

10. A method, as in claim 9, that produces a bill on receipt of the acknowledgment for one or more of the portions.

11. A method, as in claim 1, where one or more portions of the digital information are initially rejected and then accepted for transmission at one or more second times and at one or more second prices.

12. A method, as in claim 1, where the request has one or more priorities.

13. A method, as in claim 12, where the priority is that the digital information is transmitted within a time period.

14. A method, as in claim 13, where the time period is any one or more of the following: over night, two days, and one week.

15. A method, as in claim 12, where the priority is a freight priority that requires the digital information to be transmitted within a freight time period with no acknowledgments.

16. A method, as in claim 1, where the digital information is scheduled from one or more retransmissions if the time required to transmit is more than the difference between the transmit time and the end time.

17. A method, as in claim 1, where the digital information is scheduled from one or more retransmissions if no acknowledgment of the transmission of the digital information is received.

18. A method, as in claim 1, where the digital information is also not transmitted if one or more criteria are not met.

19. A method, as in claim 18, where the criteria include any one or more of the following: a file size, a release time, a deadline, zero or more recipients, zero or more user locations, an acknowledgment, a negative acknowledgment, a partial acknowledgment, a bandwidth, a quality of service, a retransmission count, and a retransmission schedule.

20. (Withdrawn) A method of doing business over a network, comprising:

receiving from a client a request for transmitting digital information from a source address to at least one recipient, the request comprising the source address, an

earliest start time, a maximum cost, a priority, and an identification of the at least one recipient, the digital information having a size;

responsive to the request, determining an end time at which the digital information should be completely transmitted to the at least one recipient;

based at least on the size and a network capacity, determining a total time required to transmit the digital information;

based at least on the size, the determined end time, the determined total time, the priority, and the cost, determining whether the digital information can be completely transmitted to the at least one recipient after the earliest start time and prior to the determined end time;

in response to a determination that the digital information cannot be completely transmitted to the at least one recipient after the earliest start time and prior to the determined end time, notifying the client; and

in response to a determination that the digital information can be transmitted to the at least one recipient:

begin transmitting the digital information at a time that is prior to the end time and later than the earliest start time; and

billing the client an amount that does not exceed the maximum cost.

21. (Withdrawn) The method of claim 20, wherein determining the end time further comprises determining the end time by using the priority and the start time.

22. (Withdrawn) The method of claim 21, wherein the request further comprises a transmission deadline, and wherein determining the end time further comprises determining the end time by using the transmission deadline.

END OF CLAIMS

(9) EVIDENCE APPENDIX

There is no evidence submitted pursuant to 37 C.F.R. §§1.130, 1.131, or 1.132 or entered by the Examiner and relied upon by Appellant.

(10) RELATED PROCEEDING APPENDIX

There are no known decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 CFR §41.37.